

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/935,338

DATE: 02/12/2003 PG TIME: 09:02:37

Input Set : A:\sequence listing.txt Output Set: N:\CRF4\02112003\1935338.raw

```
3 <110> APPLICANT: MUKAI, Hiroyuki
         SAGAWA, Hiroaki
         UEMORI, Takashi
 5
         YAMAMOTO, Junko
 7
         TOMONO, Jun
 8
         KOBAYASHI, Eiji
         ENOKI, Tatsuji
 9
         TAKEDA, Osamu
10
11
         MIYAKE, Kazue
12
         SATO, Yoshimi
13
         MORIYAMA, Mariko
14
         SAWARAGI, Haruhisa
         HAGIYA, Michio
15
         ASADA, Kiyozo
16
17
         KATO, Ikunoshin
19 <120> TITLE OF INVENTION: A method for amplification of nucleic acids
21 <130> FILE REFERENCE: MUKAI=1
23 <140> CURRENT APPLICATION NUMBER: 09/935,338
24 <141> CURRENT FILING DATE: 2001-08-23
26 <150> PRIOR APPLICATION NUMBER: JP11-076966
27 <151> PRIOR FILING DATE: 1999-03-19
29 <150> PRIOR APPLICATION NUMBER: JP11-370035
30 <151> PRIOR FILING DATE: 1999-12-27
32 <150> PRIOR APPLICATION NUMBER: JP2000-251981
33 <151> PRIOR FILING DATE: 2000-08-23
35 <150> PRIOR APPLICATION NUMBER: JP2000-284419
36 <151> PRIOR FILING DATE: 2000-09-19
38 <150> PRIOR APPLICATION NUMBER: JP2000-288750
39 <151> PRIOR FILING DATE: 2000-09-22
41 <150> PRIOR APPLICATION NUMBER: JP2001-104191
42 <151> PRIOR FILING DATE: 2001-04-03
44 <150> PRIOR APPLICATION NUMBER: PCT/JP00/01534
45 <151> PRIOR FILING DATE: 2000-03-14
47 <160> NUMBER OF SEQ ID NOS: 290
49 <170> SOFTWARE: PatentIn version 3.2
51 <210> SEQ ID NO: 1
52 <211> LENGTH: 99
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial
56 <220> FEATURE:
57 <223> OTHER INFORMATION: Synthetic DNA corresponding to a portion of human transferrin
58
         receptor-encoding sequence used as a template
60 <400> SEQUENCE: 1
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Input Set : A:\sequence listing.txt
                     Output Set: N:\CRF4\02112003\I935338.raw
     61 ggacagcaac tgggccagca aagttgagaa actcacttta gagaattctg ctttcccttt
                                                                                60
     63 ccttgcatat tctgagcagt ttctttctgt ttttgcgag
                                                                                99
     66 <210> SEQ ID NO: 2
     67 <211> LENGTH: 22
     68 <212> TYPE: DNA
     69 <213> ORGANISM: Artificial
     71 <220> FEATURE:
     72 <223> OTHER INFORMATION: Designed oligonucleotide primer to amplify a portion of human
              transferrin receptor-encoding sequence
     75 <400> SEQUENCE: 2
     76 cagcaactgg gccagcaaag tt
                                                                                22
     79 <210> SEQ ID NO: 3
     80 <211> LENGTH: 22
     81 <212> TYPE: DNA
     82 <213> ORGANISM: Artificial
     84 <220> FEATURE:
     85 <223> OTHER INFORMATION: Designed oligonucleotide primer to amplify a portion of human
              transferrin receptor-encoding sequence
     88 <400> SEOUENCE: 3
                                                                                22
     89 gcaaaaacag aaagaaactg ct
     92 <210> SEQ ID NO: 4
     93 <211> LENGTH: 22
     94 <212> TYPE: DNA
     95 <213> ORGANISM: Artificial
     97 <220> FEATURE:
     98 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a portion
     99
              human transferrin receptor-encoding sequence. "nucleotide 21 is
               ribonucleotide-other nucleotides are deoxyribonucleotides"
     100
     102 <400> SEQUENCE: 4'
                                                                                 22
     103 cagcaactgg gccagcaaag ut
     106 <210> SEQ ID NO: 5
     107 <211> LENGTH: 22
     108 <212> TYPE: DNA
     109 <213> ORGANISM: Artificial
     111 <220> FEATURE:
     112 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     113
               human transferrin receptor-encoding sequence. "nucleotide 21 is
               ribonucleotide-other nucleotides are deoxyribonucleotides"
     114
     116 <400> SEQUENCE: 5
                                                                                 22
     117 gcaaaaacag aaagaaactg ct
     120 <210> SEQ ID NO: 6
     121 <211> LENGTH: 22
     122 <212> TYPE: DNA
     123 <213> ORGANISM: Artificial
     125 <220> FEATURE:
     126 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
               human transferrin receptor-encoding sequence. "nucleotide 22 is
     127
               ribonucleotide-other nucleotides are deoxyribonucleotides"
```

130 <400> SEQUENCE: 6

of

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RAW SEQUENCE LISTING

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Input Set : A:\sequence listing.txt
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     131 cagcaactgg gccagcaaag tu
     134 <210> SEQ ID NO: 7
     135 <211> LENGTH: 22
     136 <212> TYPE: DNA
     137 <213> ORGANISM: Artificial
     139 <220> FEATURE:
     140 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     141
               human transferrin receptor-encoding sequence. "nucleotides 21 to
     142
               22 are ribonucleotides-other nucleotides are
     143
               deoxyribonucleotides"
     145 <400> SEQUENCE: 7
                                                                                 22
     146 gcaaaaacag aaagaaactg cu
     149 <210> SEO ID NO: 8
     150 <211> LENGTH: 22
     151 <212> TYPE: DNA
     152 <213> ORGANISM: Artificial
     154 <220> FEATURE:
     155 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     156
               human transferrin receptor-encoding sequence. "nucleotides 21 to
     157
               22 are ribonucleotides-other nucleotides are
               deoxyribonucleotides"
     160 <400> SEQUENCE: 8
                                                                                 22
     161 cagcaactgg gccagcaaag uu
     164 <210> SEQ ID NO: 9
     165 <211> LENGTH: 22
     166 <212> TYPE: DNA
     167 <213> ORGANISM: Artificial
     169 <220> FEATURE:
     170 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
               human transferrin receptor-encoding sequence. "nucleotides 21 to
     171
     172
               22 are ribonucleotides-other nucleotides are
     173
               deoxyribonucleotides"
     175 <400> SEQUENCE: 9
                                                                                 22
     176 gcaaaaacag aaagaaactg cu
     179 <210> SEQ ID NO: 10
     180 <211> LENGTH: 22
     181 <212> TYPE: DNA
     182 <213> ORGANISM: Artificial
     184 <220> FEATURE:
     185 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     186
               human transferrin receptor-encoding sequence. "nucleotides 19 to
     187
               20 are ribonucleotides-other nucleotides are
     188
               deoxyribonucleotides"
     190 <400> SEQUENCE: 10
                                                                                 22
     191 cagcaactgg gccagcaaag tt
     194 <210> SEQ ID NO: 11
     195 <211> LENGTH: 22
     196 <212> TYPE: DNA
     197 <213> ORGANISM: Artificial
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Input Set : A:\sequence listing.txt
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```
199 <220> FEATURE:
     200 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     201
               human transferrin receptor-encoding sequence. "nucleotides 19 to
     202
               20 are ribonucleotides-other nucleotides are
     203
               deoxyribonucleotides"
     205 <400> SEQUENCE: 11
                                                                                 22
     206 gcaaaaacag aaagaaacug ct
     209 <210> SEQ ID NO: 12
     210 <211> LENGTH: 26
     211 <212> TYPE: DNA
     212 <213> ORGANISM: Artificial
     214 <220> FEATURE:
     215 <223> OTHER INFORMATION: Designed oligonucleotide used as a probe for detecting an
     216
               amplified portion of human transferrin receptor-encoding sequence
     218 <400> SEQUENCE: 12
                                                                                 26
     219 tgctttccct ttccttgcat attctg
     222 <210> SEQ ID NO: 13
     223 <211> LENGTH: 25
     224 <212> TYPE: DNA
     225 <213> ORGANISM: Artificial
     227 <220> FEATURE:
     228 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer designated as pUC19
               upper(2)NN to amplify a portion of plasmid pUC19. "nucleotides 24
     229
     230
               to 25 are ribonucleotides-other nucleotides are
               deoxyribonucleotides"
     231
     233 <400> SEQUENCE: 13
                                                                                 25
     234 attgcttaat cagtgaggca cctau
     237 <210> SEQ ID NO: 14
     238 <211> LENGTH: 25
     239 <212> TYPE: DNA
     240 <213> ORGANISM: Artificial
     242 <220> FEATURE:
     243 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer designated as pUC19
     244
               lower NN to amplify a portion of plasmid pUC19. "nucleotides 24
     245
               to 25 are ribonucleotides-other nucleotides are
               deoxyribonucleotides"
     248 <400> SEQUENCE: 14
     249 gataacactg cggccaactt actuc
                                                                                 25
     252 <210> SEQ ID NO: 15
     253 <211> LENGTH: 25
     254 <212> TYPE: DNA
     255 <213> ORGANISM: Artificial
    · 257 <220> FEATURE:
     258 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a
portion of
     259
               plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other
     260
               nucleotides are deoxyribonucleotides"
     262 <400> SEQUENCE: 15
     263 actggcgaac tacttactct agcuu
                                                                                25
     266 <210> SEQ ID NO: 16
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Input Set : A:\sequence listing.txt Output Set: N:\CRF4\02112003\I935338.raw 267 <211> LENGTH: 26 268 <212> TYPE: DNA 269 <213> ORGANISM: Artificial 271 <220> FEATURE: 272 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer designated as pUC19 lower 542 to amplify a portion of plasmid pUC19. "nucleotides 24 273 to 25 are ribonucleotides-other nucleotides are 274 275 deoxyribonucleotides" 277 <400> SEQUENCE: 16 26 278 agtcaccaga aaagcatctt acggau 281 <210> SEQ ID NO: 17 282 <211> LENGTH: 25 283 <212> TYPE: DNA 284 <213> ORGANISM: Artificial 286 <220> FEATURE: 287 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer to amplify a portion of 288 plasmid pUC19. "nucleotides 24 to 25 are ribonucleotides-other 289 nucleotides are deoxyribonucleotides" 291 <400> SEQUENCE: 17 25 292 gctcatgaga caataaccct gataa 295 <210> SEO ID NO: 18 296 <211> LENGTH: 25 297 <212> TYPE: DNA 298 <213> ORGANISM: Artificial 300 <220> FEATURE: 301 <223> OTHER INFORMATION: Designed oligonucleotide primer designated as pUC19 upper 150 to 302 amplify a portion of plasmid pUC19. "nucleotides 23 to 25 are ribonucleotides-other nucleotides are deoxyribonucleotides" 305 <400> SEQUENCE: 18 25 306 ggtgtcacgc tcgtcgtttg gtaug 309 <210> SEQ ID NO: 19 310 <211> LENGTH: 25 311 <212> TYPE: DNA 312 <213> ORGANISM: Artificial 314 <220> FEATURE: 315 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer designated as pUC19 lower NN to amplify a portion of plasmid pUC19. "nucleotides 23 316 317 to 25 are ribonucleotides-other nucleotides are 318 deoxyribonucleotides" 320 <400> SEQUENCE: 19 25 321 gataacactg cggccaactt acuuc 324 <210> SEO ID NO: 20 325 <211> LENGTH: 25 326 <212> TYPE: DNA 327 <213> ORGANISM: Artificial 329 <220> FEATURE: 330 <223> OTHER INFORMATION: Designed chimeric oligonucleotide primer designated as pUC19 331 upper 249 to amplify a portion of plasmid pUC19. "nucleotides 23 to 25 are ribonucleotides-other nucleotides are 332

RAW SEQUENCE LISTING

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RAW SEQUENCE LISTING ERROR SUMMARY DATE: 02/12/2003 PATENT APPLICATION: US/09/935,338 TIME: 09:02:38

Input Set : A:\sequence listing.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:97; N Pos. 15
Seq#:98; N Pos. 18
Seq#:108; N Pos. 15,18
Seq#:109; N Pos. 15
Seq#:153; N Pos. 18
Seq#:154; N Pos. 17
Seq#:155; N Pos. 16
Seq#:156; N Pos. 17
Seq#:157; N Pos. 16
Seq#:158; N Pos. 15

Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19,20,21,22,23,24,25,26,27
Seq#:28,29,30,31,32,33,34,35,36,37,38,39,40,41,42,43,44,45,46,47,48,49,50,51
Seq#:52,53,54,55,56,57,58,59,60,61,62,63,64,65,66,67,68,69,70,71,72,73,74,75
Seq#:76,77,78,79,80,81,82,83,84,85,86,87,88,89,90,91,92,93,94,95,96,97,98,99
Seq#:100,101,102,103,106,107,108,109,110,111,114,116,117,120,121,122,123,124
Seq#:125,126,127,128,129,130,131,132,133,134,135,136,137,138,139,140,141,142
Seq#:143,144,145,146,147,148,149,150,151,152,153,154,155,156,157,158,159,160
Seq#:161,162,163,164,165,166,167,168,169,170,171,172,173,174,175,176,177,178
Seq#:179,180,181,182,183,184,185,186,187,188,189,190,191,192,193,194,195,196
Seq#:197,198,199,200,201,202,203,204,205,206,207,208,209,210,211,212,213,214
Seq#:215,216,217,218,219,220,221,222,223,224,225,226,227,228,229,230,231,235
Seq#:236,240,241,244,245,246,247,248,249,250,251,252,253,254,255,260,261,262
Seq#:263,264,265,266,267,268,269,270,271,272,273,274,275,276,277,278,279,280
Seq#:281,282,283,284,285,286,287,288,289,290

VERIFICATION SUMMARY

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Input Set : A:\sequence listing.txt Output Set: N:\CRF4\02112003\1935338.raw

```
L:1440 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:97 after pos.:0
L:1459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:98 after pos.:0
L:1682 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:108 after pos.:0
L:1701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:109 after pos.:0
L:2492 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:153 after pos.:0
L:2512 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:154 after pos.:0
L:2532 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:155 after pos.:0
L:2552 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:156 after pos.:0
L:2572 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:157 after pos.:0
L:2592 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:158 after pos.:0
```